

Seeing the Data When You Can't See the Data: A Tour of Documentation of the CDW

October 27, 2014

By Margaret Gonsoulin, PhD



Thanks to:

- Richard Pham, BISL/CDW
- Mark Dean, BISL/CDW
- Colleagues at VIREC

Definitions

- **Corporate Data Warehouse (CDW)** – national level database housing clinical, administrative and financial Veterans Health Administration information.
- **Business Intelligence Service Line (BISL)** – the group that architects the CDW.
- **Metadata** – documentation describing the data contents.
- **VistA** – Veterans Health Information Systems and Technology Architecture; an information system that has many applications, including the Electronic Health Record.

In today's talk...

- Continue the discussion that began in my last cyberseminar “First Time Research Users’ Guide to CDW: Getting Started with this Relational Database”
- Identify the sites that hold documentation of CDW
- Review the content of materials in each site
- Learn how to use these resources

Poll #1: Your CDW Experience

Rate your level of experience with CDW data on a scale of 1 to 5...

- 1 Not worked with it at all
- 2
- 3
- 4
- 5 Very experienced with CDW

Poll #2: Have you seen “Getting Started with this Relational Database”?

Did you view our CDW cyberseminar, “First Time Research Users’ Guide to CDW: Getting Started with this Relational Database” (live broadcast July 2014)?

- Yes
- No
- Not sure

Reminder - 2 Domain Types

- **Production Domains** – contains tables that have been structured by BISL to support their re-joining.
- **Raw Domains** – contains tables that are direct extracts from the source system (e.g., VistA) that are simply being housed with no editing performed on them.
- These types of domains also vary in terms of their documentation.

Example #1 - A Production Domain

Let's say that you are doing research that pertains to allergic reactions. You do not currently have access to the data, but you want to learn about which measures exist in the CDW that are related to substances associated with allergic reactions. You decide to search the metadata for the production domain called Allergy.

5 Documentation Sites for Production Domains

We will explore 5 main sites housing information related to our example domain:

1. VHA Data Portal
2. VA Information Resource Center (VIReC)
3. CDW SharePoint
4. Data Architecture Repository (DAR)
5. VA Informatics and Computing Infrastructure (VINCI)

VHA Data Portal

- This site provides:
 - Links to all of the other sites mentioned in this talk
 - Information about how to apply for access to CDW data

VHA Data Portal

Quick View

CDW is an evolving repository of national VHA data. It is a physical implementation of a logical data model at the enterprise level for VHA.

CDW

- Overview
- Content
- Structure
- Access
- Resources

Resources

- The [CDW SharePoint site](#) contains information on newly released and missing data, an up-to-date list of data domains, structural documentation, and more.
- VIREC provides the following resource on CDW:
 - VIREC's *First Time Research User's Guide to CDW: Getting Started with this Relational Database* cyberseminar introduces basic concepts and vocabulary associated with data warehouses and relational databases, discusses how they apply to the CDW, and directs users to resources for gathering information about CDW's data contents.
 - *VIREC Resource Guide: VA Corporate Data Warehouse (CDW)* provides a general overview of the CDW including CDW structure, content, and utility.
 - VIREC *Summary Documentation* on CDW datasets includes data contents, frequencies and counts, domain layouts, and sample records.
 - VIREC's *CDW Cyber Seminar Miniseries* provides information on using the CDW.
- Visit the [VINCI Workspace](#) page to learn more about using the VINCI Workspace to store and analyze CDW data.

[Operations/ Non-Research](#)
[Preparatory to Research](#)
[Research](#)

Visit the [Data Access](#) page for more information about accessing VHA data.

Resources

- The [CDW SharePoint site](#) contains information on newly released and missing data, an up-to-date list of data domains, structural documentation, and more.
- VIREC provides the following resource on CDW:
 - *VIREC Resource Guide: VA Corporate Data Warehouse (CDW)* provides a general overview of the CDW including CDW structure, content, and utility.
 - VIREC *Summary Documentation* on CDW datasets includes SAS Proc Contents and record level frequencies.
 - VIREC's *CDW Cyber Seminar Mini-Series* provides information on using the CDW.
- Visit the [VINCI Workspace](#) page to learn more about using the VINCI Workspace to store and analyze CDW data.

All Rights Reserved Department of Veteran Affairs [Sitemap](#) [Section 508 Accessibility](#) [Privacy Policy](#) [OIA Homepage](#) [HSR&D Homepage](#) [Contact Us](#)

Direct Link- <http://vaww.vhadataportal.med.va.gov/DataSources/CDW.aspx>

VIReC's CDW Documentation Page

- This consists of a set of products that allow a glimpse into CDW data before you have been granted official access.
 - Lists of domains and tables
 - Formats of each column
 - Examples of records
 - Counts and frequencies



INTRANET

VA INFORMATION RESOURCE CENTER (VIReC)

VIReC Home
VA/CMS Home
About Us
New Users of VA Data
Data Transition to CDW
News & Updates
FAQs
Acronyms
HelpDesk

CDW Documentation

Overview

VIReC documentation for the Corporate Data Warehouse (CDW) includes domain layouts, data contents, sample records, and frequencies. This summary information is available by domain or schema.

Domain Layout

A list of schemas and tables for each CDW domain.

[View Domain Layout](#)

Data Contents

A list of data elements for each CDW domain.

[View Data Contents](#)

Sample Records

Randomly selected records for each CDW domains.

[View Sample Records](#)

Frequencies & Counts

Record counts, null counts, and selected discrete value frequencies by schema.

[View Frequencies & Counts](#)

List of domains & tables

**List of columns
& their formats**

20 sample records

**Frequencies for
discrete values &
counts of null values**



<http://vaww.virec.research.va.gov/CDW/Documentation.htm>

Domain Layout

A list of schemas and tables for each CDW domain.

[View Domain Layout](#)

VHA Corporate Data Warehouse (CDW) Domain Layout, June 2014

Domain	Schema	Table Name
Allergy 1.0	Allergy	AllergicReaction
	Allergy	AllergicReactionAssessment
	Allergy	Allergy
	Allergy	AllergyComment
	Allergy	AllergyDrugClass
	Allergy	AllergyDrugIngredient
	Dim	Reactant
	Dim	ReactantDrugClass
	Dim	ReactantDrugIngredient
	Dim	ReactantSynonym
	Dim	Reaction
	Dim	ReactionEffectiveDate
	Dim	ReactionSynonym
Appointment 2.0	Appt	Appointment
	Appt	AppointmentMultiple
	Dim	CancellationReason
Consult 2.0	Con	Consult
	Con	ConsultActivity

Data Contents

A list of data elements for each CDW domain.

[View Data Contents](#)



Click "View Data Contents"
for expanded view

Domain	Data Contents
Allergy 1.0	X
Appointment 2.0	X
Consult 2.0	



VHA Corporate Data Warehouse (CDW) Allergy 1.0 Domain Data Contents

About This Workbook

This workbook provides data contents for the Allergy 1.0 domain data in the Corporate Data Warehouse (CDW).

Select a table name from the list below to access a spreadsheet with its data contents. Table descriptions and find the MetaData Report on CDW's SharePoint site, <https://vawww.dwh.cdw.portal.va.gov/metadata/default.aspx>.

Schema	Table
Allergy	AllergicReaction
Allergy	AllergicReactionAssessment
Allergy	Allergy
Allergy	AllergyComment
Allergy	AllergyDrugClass
Allergy	AllergyDrugIngredient
Dim	Reactant
Dim	ReactantDrugClass
Dim	ReactantDrugIngredient
Dim	ReactantSynonym
Dim	Reaction
Dim	ReactionEffectiveDate
Dim	ReactionSynonym

Spreadsheet Column Definitions

Field Name	
	the column name in each CDW table
SQL	Data Type Defines the type of value a field can contain.
	Length For a character string or unicode data type, length represents the number of characters; for a numeric data type, length represents the number of bytes that are used to store the number.
	Precision the number of digits in a number excluding decimal point
	Scale the number of digits to the right of the decimal point in a number

Data Content Dim.Reactant

VHA Corporate Data Warehouse (CDW) Allergy 1.0 Domain Data Contents, March 2014

Table Name: Reactant

Field Name	SQL				SAS	
	Data Type	Length	Precision	Scale	Data Type	Length
MasterEntryForVUIDFlag	CHAR	1			CHARACTER	1
NationalFlag	CHAR	1			CHARACTER	1
Reactant	VARCHAR	50			CHARACTER	50
ReactantIEN	VARCHAR	50			CHARACTER	50
ReactantSID	INT	4	10		NUMERIC	8
ReactantType	VARCHAR	50			CHARACTER	50
Sta3n	SMALLINT	2	5		NUMERIC	8
VUID	VARCHAR	50			CHARACTER	50

[Go to About Sheet](#)

Sample Records

Randomly selected records for each domain. Click "View Data Contents" for expanded view

[View Sample Records](#)

Domain	Sample Records
Allergy 1.0	X
Appointment 2.0	X
Consult 2.0	X



VHA Corporate Data Warehouse (CDW) Allergy 1.0 Domain Sample Records

About This Workbook

This workbook provides 20 randomly selected records from each table of the Allergy 1.0 domain in the Corporate Data Warehouse. Records containing Protected Health Information (PHI) have been de-identified. Thus, while each record shows a complete set of data fields, all PHI have been replaced by Xs for numeric data fields and YYYY-MM-DD or YYYY-MM-DD HH:MM:SS for dates.

Select a table name from the list below to access a spreadsheet with its sample records. Table descriptions and field details are available in the Metadata Report on CDW's SharePoint site, <https://vaww.dwh.cdw.portal.va.gov/metadata/default.aspx>.

Schema	Table
Allergy	AllergicReaction
Allergy	AllergicReactionAssessment
Allergy	Allergy
Allergy	AllergyComment
Allergy	AllergyDrugClass
Allergy	AllergyDrugIngredient
Dim	Reactant
Dim	ReactantDrugClass
Dim	ReactantDrugIngredient
Dim	ReactantSynonym
Dim	Reaction
Dim	ReactionEffectiveDate
Dim	ReactionSynonym

20 sample records from Dim.Reactant

VHA Corporate Data Warehouse (CDW) Allergy 1.0 Domain Sample Records, March 2014							
Table Name: Dim.Reactant							
ReactantSID	ReactantIEN	Sta3n	Reactant	ReactantType	NationalFlag	MasterEntryFor	UIDFlag
1200002951	689	590	WINE	DF	Y	Y	4636870
800006724	204	501	RADISHES	F	NULL	N	4636901
800005164	78	692	DIPHTHERIA TOXOID	DF	Y	Y	4538540
1000000991	274	695	CHIVES	IF	Y	Y	4637377
1400002480	447	632	INDOOR MOLD	O	Y	Y	4690929
1200031173	755	581	PORTUGUESE MAN OF WAR STING	O	NULL	Y	4706313
1000006763	526	618	BUMBLE BEE STINGS	O	Y	Y	4636660
1000020594	208	502	BEETS	IF	Y	Y	4636705
1200012281	813	558	PUDDING	IF	NULL	Y	4538909
800010873	771	644	CAPERS	IF	NULL	Y	4706335
1400003047	477	632	LUX SOAP	O	Y	Y	4636760
800001560	205	691	ZZZPHENOBARBITAL 30MG TAB	D	NULL	Y	4539166
800011487	246	653	ADHESIVES	O	Y	Y	4637425
1000013651	603	695	SALT	IF	Y	Y	4636878
1400000409	406	608	ELASTOPLAST TAPE	O	Y	Y	4636627
1000000240	150	676	CRAB	IF	Y	Y	4636668
1000018954	502	549	PALM OIL	F	Y	Y	4636723
1400009360	243	518	CLEANING SOLUTIONS	O	Y	Y	4637371
1000008888	644	564	TEGADERM	O	Y	Y	4636809
1000016933	520	556	ONIONS	DF	Y	Y	4637334

[Go to About Sheet](#)

Free text

Discrete

Frequencies & Counts

Record counts, null counts, and selected discrete value frequencies by schema.

View Frequencies & Counts

Schema	Frequency
ALLERGY	X
APPT	X
CHEM	X
CON	X
CPRSORDER	X
DENTAL	X
DIM	X

VIReC Record Counts, Null Counts and Discrete Value Frequencies: Corporate Data Warehouse DIM Schema, October 2013	
1	
2	About This Workbook
3	This workbook provides summary statistics for the DIM schema in the Corporate Data Warehouse (CDW), presented by CDW table, fiscal year, and VA
4	Station Number in the following three worksheets:
5	• Record Count: Displays total number of records in each CDW table
6	• Null Value Count: Displays number of records where the data element of interest is missing (null)
7	• Discrete Value Count: Displays count and percent for discrete code values for categorical variables
8	Summary statistics in this workbook reflect the information provided in the CDW Data Profiling domain on October 1, 2013. These statistics reflect the source data, including out of range values such as FY2014, FY2015, etc.
9	More documentation for the CDW is available from the MetaData Report on CDW's SharePoint site, https://vawww.dwh.cdw.portal.va.gov/metadata/default.aspx .
10	Column Definitions
11	• Table: A group of data elements. Fact tables contain measurements of specific events. Dimensions describe characteristics of the facts. In a relational database, each table (sometimes called a relation) contains one or more data elements, arranged with a column for each data element and a row for each record, that is, each instance of that element.
12	• Field: A list of the data elements in each CDW table
13	• Discrete Value: Discrete code value for the CDW field
14	• Cumulative Records: Total number of records through data extraction date (Oct. 1st, 2013)
15	• Record Count: Total number of records in each CDW table
16	• Null Count: Number of records where the data element is missing (null)
17	• Discrete Value Count: Count of the discrete code value for each field
18	• Percent: Count of the discrete code value divided by the total number of records of the field
19	• Station Count: Number of VA stations contributing to the record, null or discrete count
20	Acknowledgements
21	The VA Information Resource Center (VIReC) is supported by Health Services Research and Development (HSR&D) Service grant SDR 98-004.
22	Contact Information
23	VA Information Resource Center (VIReC)
24	Health Services Research and Development Service
25	Department of Veterans Affairs
26	Edward Hines, Jr. VA Hospital
27	5000 South 5th Avenue (151V)
28	Hines, IL 60141
29	VIReC Help Desk: virec@va.gov
30	VIReC website: http://www.virec.research.va.gov/index.htm
31	Suggested Citation
32	VA Information Resource Center. VIReC Frequencies: Record Counts, Null Counts and Discrete Value Frequencies : Corporate Data Warehouse DIM
33	Ready

Record Count

	A	B	C
1	SCHEMA: DIM		
2	Table	Cumulative Records	
3		Record Count	Station Count
118	REACTANT	106,386	138
119	RELEASEEVENT	6,669	132
120	RELIGION	10,993	138

Null Count

	A	B	C	D
1	SCHEMA: DIM			
2	Table	Field	Cumulative Records	
3			Null Count	Station Count
1120	REACTANT	ALLERGYTERMIEN	0	138
1121	REACTANT	ALLERGYTYPE	218	138
1122	REACTANT	MASTERENTRYFORVUIDFLAG	0	138
1123	REACTANT	NATIONALALLERGYFLAG	14,092	138
1124	REACTANT	VUID	0	138
1125	RELEASEEVENT	COPYACTIVEORDERSFLAG	2,412	132
1126	RELEASEEVENT	DISPLAYTEXT	974	132
1127	RELEASEEVENT	INACTIVATEDDATETIME	4,647	132
1128	RELEASEEVENT	INSTITUTIONIEN	1,200	132

Discrete Value Counts

	A	B	C	D	E	F
1	SCHEMA: DIM					
2	Table	Field	Discrete Value	Cumulative Records		
3				Discrete Value Count	Percent	Station Count
145669	REACTANT	MASTERENTRYFORVUIDFLAG	*	8	0.01	8
145670	REACTANT	MASTERENTRYFORVUIDFLAG	N	1,330	1.25	129
145671	REACTANT	MASTERENTRYFORVUIDFLAG	Y	105,048	98.74	130
145672	REACTANT	NATIONALALLERGYFLAG		14,092	13.25	130
145673	REACTANT	NATIONALALLERGYFLAG	*	8	0.01	8
145674	REACTANT	NATIONALALLERGYFLAG	N	92,286	86.75	130
145675	RELEASEEVENT	TYPEOFEVENT		221	4.03	16
145676	RELEASEEVENT	TYPEOFEVENT	*Missing*	4	0.07	4
145677	RELEASEEVENT	TYPEOFEVENT	*Unknown at this time*	4	0.07	4

CDW SharePoint

- Here a user can find information about:
 - Table contents
 - VHA data origins
 - Linking keys
 - Data formats



NEW TO CDW?

Are you getting started with the Corporate Data Warehouse (CDW)?

- [Intro and Policies](#)
- [CDW Support](#)
- [CDW Metadata](#)

WHAT'S IN THE WORKS?

- [General Announcements](#)
- [Training Announcements](#)
- [CDW Domain Status and Priority \(Excel\)](#)

EXTERNAL LINKS

- [HSR&D Listserv](#)
- [Data Quality](#)
- [VHA Data Portal](#)
- [DAR](#)
- [NDS](#)
- [System Status & Planned Outages](#)

DATA ACCESS

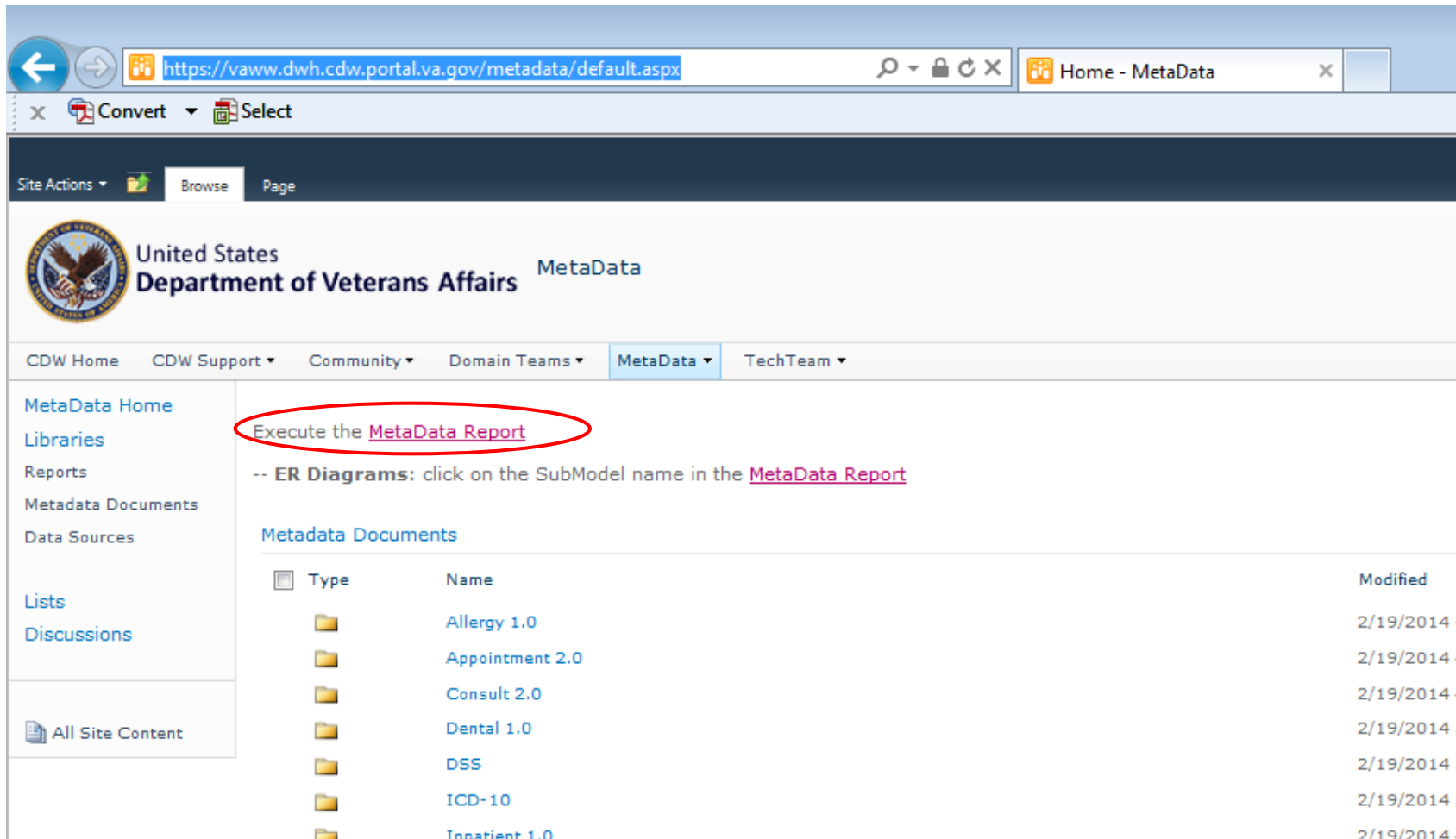
Do you want to get connected to CDW? There are many types of access to CDW. The best thing to do before you start is to define what kind of access you need.

- [Data Access information](#)
- [Customer and Project Permissions](#)

NEW CDW SHAREPOINT SITE! Don't be alarmed you are in the right place. You may see changes but if you have any questions or concerns please contact Robert.Street2@va.gov.

<https://vaww.dwh.cdw.portal.va.gov/Pages/CDWHome.aspx>

Metadata for Production Domains



The screenshot shows a web browser window with the URL <https://vaww.dwh.cdw.portal.va.gov/metadata/default.aspx>. The page header includes the United States Department of Veterans Affairs logo and the title "United States Department of Veterans Affairs Metadata". A navigation bar contains links for "CDW Home", "CDW Support", "Community", "Domain Teams", "MetaData", and "TechTeam". On the left sidebar, there are links for "MetaData Home", "Libraries", "Reports", "Metadata Documents", "Data Sources", "Lists", and "Discussions". The main content area features a red circle around the text "Execute the [MetaData Report](#)". Below this, a section titled "Metadata Documents" contains a table with the following data:

Type	Name	Modified
Folder	Allergy 1.0	2/19/2014 6
Folder	Appointment 2.0	2/19/2014 4
Folder	Consult 2.0	2/19/2014 4
Folder	Dental 1.0	2/19/2014 5
Folder	DSS	2/19/2014 5
Folder	ICD-10	2/19/2014 5
Folder	Inpatient 1.0	2/19/2014 4

<https://vaww.dwh.cdw.portal.va.gov/metadata/default.aspx>

Entity Relationship Diagrams

CDW Home > MetaData > Reports

Actions Find Next 100%

Document Map

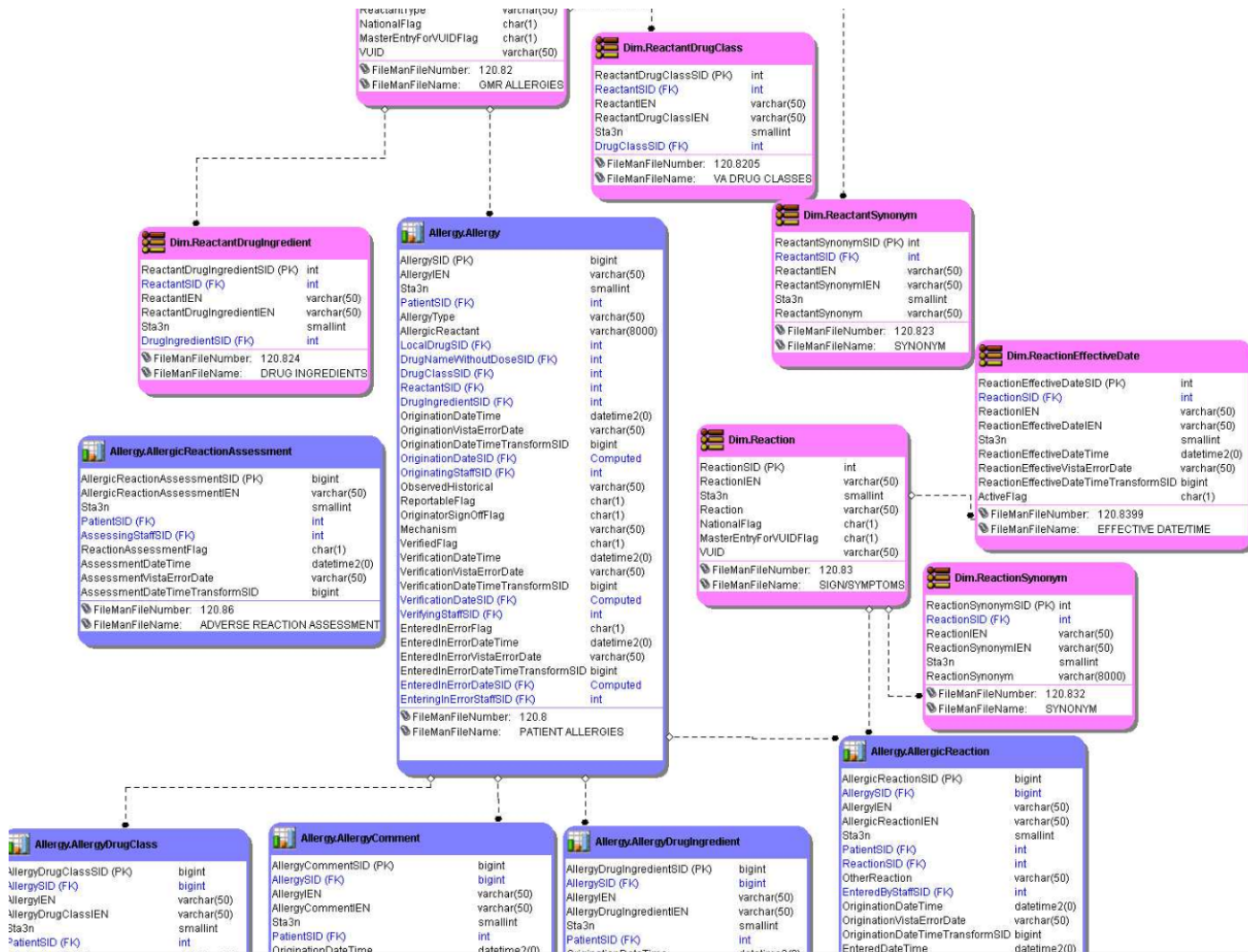
- Metadata Report
- Allergy 1.0
- Appointment 2.0
- Consult 2.0
- CPRSOrder 1.0
- Data Profiling 1.0
- Dental 1.0 Diagram 1 of 2
- Dental 1.0 Diagram 2 of 2 for Ana
- Dimensions Common 1.0
- Encounter 1.0
- HealthFactor 1.0
- Immunization 1.0
- Inpatient 1.0 Diagram 1 of 2
- Inpatient 1.0 Diagram 2 of 2 for C
- Inpatient 2.0 Diagram 1 of 3
- Inpatient 2.0 Diagram 2 of 3 for C
- Inpatient 2.0 Diagram 3 of 3 for R
- Lab Microbiology 1.0
- LabChem 2.0
- Mental Health 1.0
- Outpatient 1.0
- Patient 1.0
- PCMM 1.1
- Pharmacy BCMA 1.0
- Pharmacy Outpatient 2.1
- Purchased Care 1.0 Diagram 1 of
- Purchased Care 1.0 Diagram 3 of
- Purchased Care 1.1 Diagram 2 of
- Staff Release 1.0
- Text Document Titles 1.0
- VistaA Permissions 1.0
- Vital Sign 1.0

Submodel (links to diagrams)	Schema	Table Name	Vista File	Key Date Column	Table Description	Table Description Author	Description Date	Table Description Technical
Allergy 1.0	Allergy	AllergicReaction	REACTIONS	OriginationDateTime			3/18/2013 9:29:00 AM	This table will have no cutoff date. All rec
	Allergy	AllergicReactionAssessment	ADVERSE REACTION ASSESSMENT	AssessmentDateTime			10/3/2013 2:44:00 PM	There will be no cutoff field for this table.
	Allergy	Allergy	PATIENT ALLERGIES	OriginationDateTime		Pham 4/2013	2/25/2011 12:03:00 AM	Cutoff logic - Take all allergies. There shou
	Allergy	AllergyComment	COMMENTS	OriginationDateTime			8/3/2012 9:53:00 PM	No cutoff date. Take all records.
	Allergy	AllergyDrugClass	DRUG CLASSES	OriginationDateTime			4/1/2013 6:05:00 AM	There is no cutoff date for this table. Take
	Allergy	AllergyDrugIngredient	DRUG INGREDIENTS	OriginationDateTime			4/1/2013 6:05:00 AM	There is no cutoff date for this table. Take
	Dim	Reactant	GMR ALLERGIES				5/3/2012 11:58:00 PM	
	Dim	ReactantDrugClass	VA DRUG CLASSES				3/17/2013 11:04:00 PM	
	Dim	ReactantDrugIngredient	DRUG INGREDIENTS				5/22/2013 9:45:00 AM	
	Dim	ReactantSynonym	SYNONYM				3/20/2013 7:57:00 PM	
	Dim	Reaction	SIGN/SYMPTOMS				8/3/2012 9:31:00 PM	
	Dim	ReactionEffectiveDate	EFFECTIVE DATE/TIME				3/17/2013 10:56:00 PM	
	Dim	ReactionSynonym	SYNONYM				8/3/2012 9:34:00 PM	
Appointment 2.0	Appt	Appointment	APPOINTMENT	AppointmentDateTime			4/14/2011 4:02:00 PM	The cutoff field for Appointment is Appt date is 10/1/1999. Include records with a i AppointmentVistaDate.
	Appt	AppointmentMultiple	PATIENT	AppointmentMadeDate			10/9/2012 4:26:00 PM	The cutoff field for AppointmentMultiple is cutoff date is 10/1/1999. Records that the AppointmentMadeDate are not processed
	Dim	CancellationReason	CANCELLATION REASONS				10/9/2012 9:07:00 PM	

Entity Relationship Diagrams

ER Diagram for Allergy 1.0 Domain

10/27/2014



- Blue boxes represent fact tables & pink represent dimension tables.
- The lines represent links between tables.

ER Diagram (magnified)

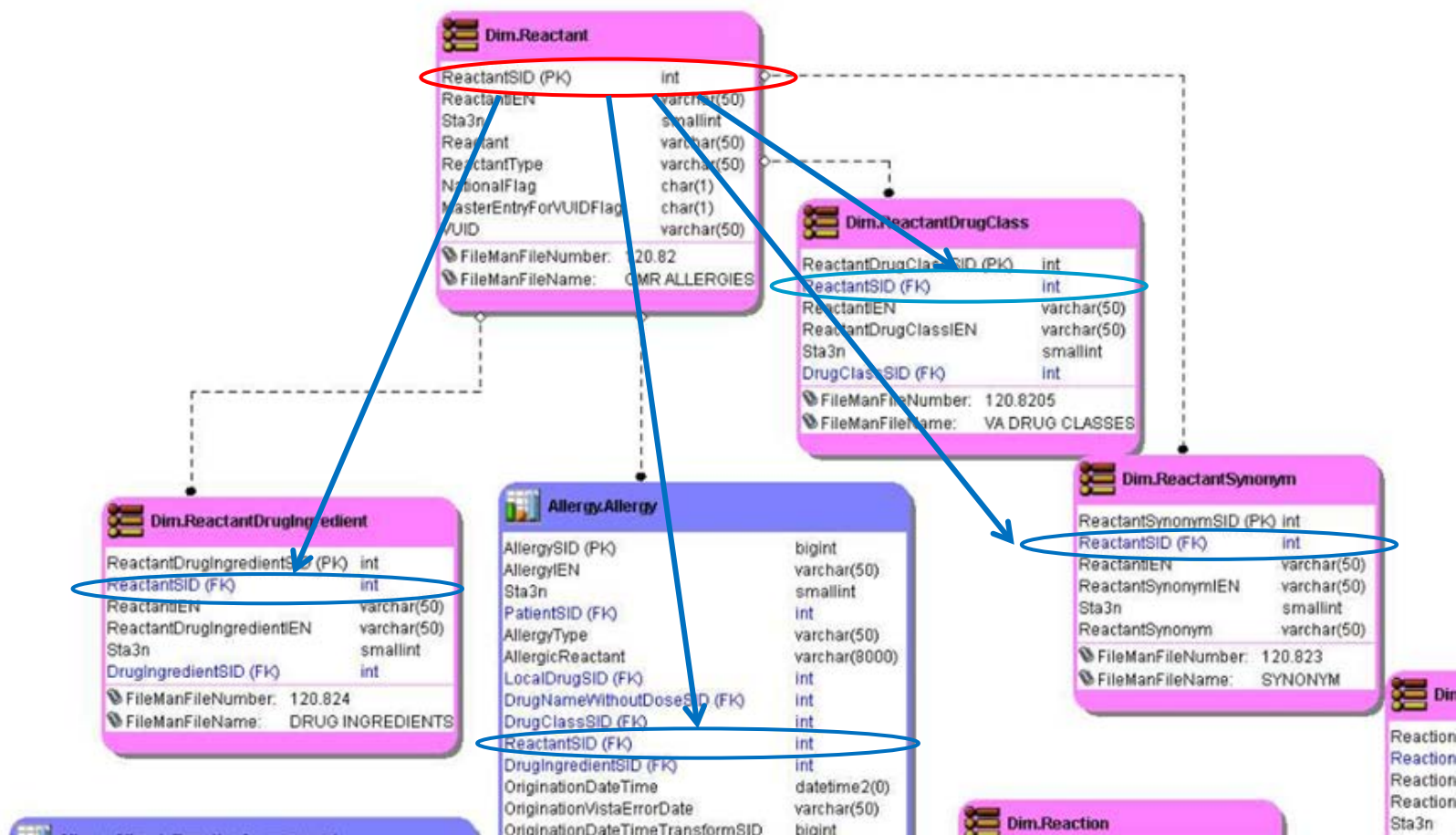
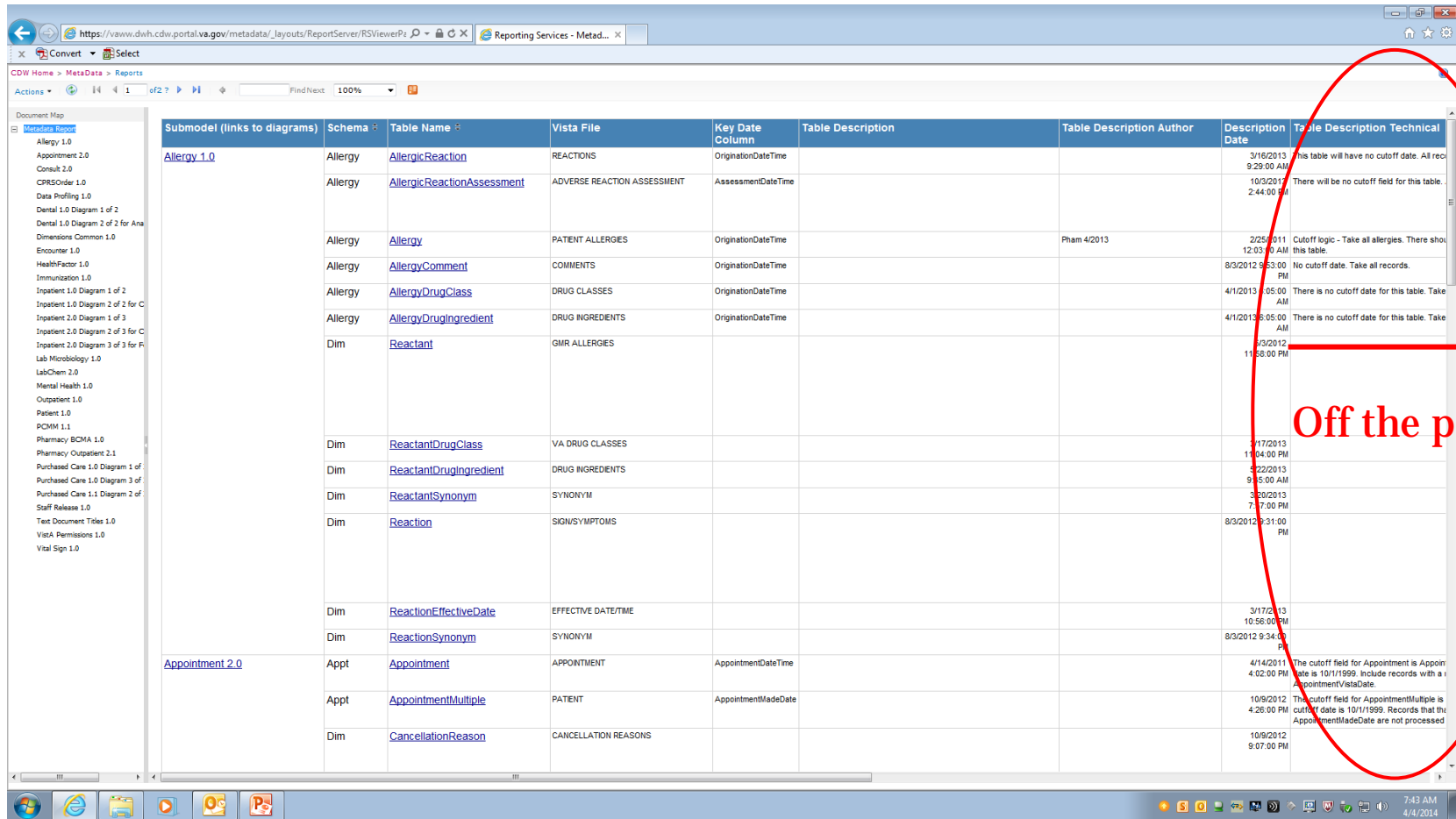


Table Descriptions



The screenshot shows a web application interface with a table of table descriptions. The table has columns for Submodel, Schema, Table Name, Vista File, Key Date Column, Table Description, Table Description Author, Description Date, and Table Description Technical. The table is divided into sections for 'Allergy 1.0' and 'Appointment 2.0'. A red circle highlights the right side of the table, with an arrow pointing to the text 'Off the page'.

Submodel (links to diagrams)	Schema	Table Name	Vista File	Key Date Column	Table Description	Table Description Author	Description Date	Table Description Technical
Allergy 1.0	Allergy	AllergicReaction	REACTIONS	OriginationDateTime			3/16/2013 9:29:00 AM	This table will have no cutoff date. All records are included.
	Allergy	AllergicReactionAssessment	ADVERSE REACTION ASSESSMENT	AssessmentDateTime			10/3/2012 2:44:00 PM	There will be no cutoff field for this table.
	Allergy	Allergy	PATIENT ALLERGIES	OriginationDateTime		Pham 4/2013	2/25/2011 12:03:00 AM	Cutoff logic - Take all allergies. There should be no cutoff for this table.
	Allergy	AllergyComment	COMMENTS	OriginationDateTime			8/3/2012 9:33:00 PM	No cutoff date. Take all records.
	Allergy	AllergyDrugClass	DRUG CLASSES	OriginationDateTime			4/1/2013 3:55:00 AM	There is no cutoff date for this table. Take all records.
	Allergy	AllergyDrugIngredient	DRUG INGREDIENTS	OriginationDateTime			4/1/2013 3:55:00 AM	There is no cutoff date for this table. Take all records.
	Dim	Reactant	GMR ALLERGIES				10/3/2012 11:58:00 PM	
	Dim	ReactantDrugClass	VA DRUG CLASSES				3/17/2013 11:04:00 PM	
	Dim	ReactantDrugIngredient	DRUG INGREDIENTS				5/22/2013 9:15:00 AM	
	Dim	ReactantSynonym	SYNONYM				3/20/2013 7:17:00 PM	
Appointment 2.0	Appt	Appointment	APPOINTMENT	AppointmentDateTime			4/14/2011 4:02:00 PM	The cutoff field for Appointment is AppointmentMadeDate. Records with a date of 10/1/1999 are not processed.
	Appt	AppointmentMultiple	PATIENT	AppointmentMadeDate			10/9/2012 4:26:00 PM	The cutoff field for AppointmentMultiple is AppointmentMadeDate. Records with a date of 10/1/1999 are not processed.
	Dim	CancellationReason	CANCELLATION REASONS				10/9/2012 9:07:00 PM	

Descriptions of each table as a whole

Descriptions of Each Table (off to side)

CDW Home > MetaData > Reports

1

Actions | 14 | 1 of 2 | Find Next | 100%

2

Open with Report Builder

New Data Alert

Print

Export

Consult 2.0

CPRSOrder 1.0

Data Profiling 1.0

Dental 1.0 Diagram 1 of 2

Dental 1.0 Diagram 2 of 2 for Ana

Dimensions A Through D 8/12/201

Dimensions E Through K 8/12/201

Dimensions L Through R 8/12/201

Dimensions S Through Z 8/12/201

Encounter 1.0

HealthFactor 1.0

Immunization 1.0

Inpatient 2.0 Diagram 2 of 3 for C

Inpatient 2.0 Diagram 3 of 3 for F

Inpatient 2.1 Diagram 1 of 3

Lab Measurement 1.0

Submodel (links to diagrams)

Schema

Table Name

XML file with report data

CSV (comma delimited)

PDF

Excel

TIFF file

Word

MHTML (web archive)

Allergy

[AllergicReaction](#)

Allergy

[AllergicReactionAssessment](#)

Allergy

[Allergy](#)

Allergy

[AllergyComment](#)

Allergy

[AllergyDrugClass](#)

Allergy

[AllergyDrugIngredient](#)

Dim

[Reactant](#)

3

Table Descriptions (edited in excel)

	A	B	C	D	E	F
1						
2		Submodel (links to diagrams)	Schema	Table Name	Vista File	Vista File Description
3		Allergy 1.0	Allergy	AllergicReaction	REACTIONS	These are the reactions observed for this allergy/adverse reacti
4			Allergy	AllergicReactionAssessment	ADVERSE REACTION ASSESSMENT	This file is a listing of all the patients who have been asked about allergies/adverse reactions. It contains a pointer to File 2 (PATIENT), aflag to indicate if the patient has or does not have ; Allergy/AdverseReaction, the person making the assessment a the date/time of theassessment.
5			Allergy	Allergy	PATIENT ALLERGIES	Contains patient allergy/adverse reaction information.
6			Allergy	AllergyComment	COMMENTS	List of comments entered about this reaction.
7			Allergy	AllergyDrugClass	DRUG CLASSES	List of VA drug classes to which patient had reaction for thisallergy/adverse reaction.
8			Allergy	AllergyDrugIngredient	DRUG INGREDIENTS	List of drug ingredients to which patient had reaction for thisallergy/adverse reaction.
9			Dim	Reactant	GMR ALLERGIES	Contains a listing of allergies from which user can select. Per VHA directive XXX, this file has been "locked down" by DataStandardization (DS). The file definition (i.e. data dictionary) shallnot be modified. All additions, changes and deletions to entries in thefile shall be done by Enterprise Reference Terminology (ERT) using theMaster File Server (MFS), provided by Common Services (CS). Creatingand/or editing locally defin fields in the file are not permitted. Useof locally defined fields if were created prior to VHA Directive XXXshall not be supported.
10			Dim	ReactantDrugClass	VA DRUG CLASSES	List of VA Drug classes that comprise this reactant.
11			Dim	ReactantDrugIngredient	DRUG INGREDIENTS	List of drug ingredients that comprise this particular allergy.

VIReC Description --- Dim.Reactant contains the name of the reactant (e.g., "mustard," "insulin" or "epoxy") along with the type of reactant (e.g., food or drug). In addition, it makes note of whether or not the allergen or reactant is distributed through a national releaser or is locally added.

10/27/2014

Metadata Reports for Each Table

CDW Home > MetaData > Reports

Actions > Find/Next 100%

Document Map

Allergy 1.0

Appointment 2.0

Consult 2.0

CRPSOrder 1.0

Data Profiling 1.0

Dental 1.0 Diagram 1 of 2

Dental 1.0 Diagram 2 of 2 for Ana

Dimensions Common 1.0

Encounter 1.0

HealthFactor 1.0

Immunization 1.0

Inpatient 1.0 Diagram 1 of 2

Inpatient 1.0 Diagram 2 of 2 for C

Inpatient 2.0 Diagram 1 of 3

Inpatient 2.0 Diagram 2 of 3 for C

Inpatient 2.0 Diagram 3 of 3 for F

Lab Microbiology 1.0

LabChem 2.0

Mental Health 1.0

Outpatient 1.0

Patient 1.0

PCMM 1.1

Pharmacy BCMA 1.0

Pharmacy Outpatient 2.1

Purchased Care 1.0 Diagram 1 of

Purchased Care 1.0 Diagram 3 of

Purchased Care 1.1 Diagram 2 of

Staff Release 1.0

Text Document Titles 1.0

Vista Permissions 1.0

Vital Sign 1.0

Submodel (links to diagrams)	Schema	Table Name	Vista File	Key Date Column	Table Description	Table Description Author	Description Date	Table Description Technical
Allergy 1.0	Allergy	AllergicReaction	REACTIONS	OriginationDateTime			3/16/2013 9:29:00 AM	This table will have no cutoff date. All rec
	Allergy	AllergicReactionAssessment	ADVERSE REACTION ASSESSMENT	AssessmentDateTime			10/3/2013 2:44:00 PM	There will be no cutoff field for this table.
	Allergy	Allergy	PATIENT ALLERGIES	OriginationDateTime		Pham 4/2013	2/25/2011 12:03:00 AM	Cutoff logic - Take all allergies. There sho
	Allergy	AllergyComment	COMMENTS	OriginationDateTime			8/3/2012 9:53:00 PM	No cutoff date. Take all records.
	Allergy	AllergyDrugClass	DRUG CLASSES	OriginationDateTime			4/1/2013 6:05:00 AM	There is no cutoff date for this table. Take
	Allergy	AllergyDrugredient	DRUG INGREDIENTS	OriginationDateTme			4/1/2013 6:05:00 AM	There is no cutoff date for this table. Take
	Dim	Reactant	GMR ALLERGIES				5/3/2012 11:58:00 PM	
	Dim	ReactantDrugClass	VA DRUG CLASSES				3/17/2013 11:04:00 PM	
	Dim	ReactantDrugredient	DRUG INGREDIENTS				5/22/2013 9:45:00 AM	
	Dim	ReactantSynonym	SYNONYM				3/20/2013 7:57:00 PM	
Appointment 2.0	Dim	Reaction	SIGN/SYMPTOMS				8/3/2012 9:31:00 PM	
	Dim	ReactionEffectiveDate	EFFECTIVE DATE/TIME				3/17/2013 10:56:00 PM	
	Dim	ReactionSynonym	SYNONYM				8/3/2012 9:34:00 PM	
	Appt	Appointment	APPOINTMENT	AppointmentDateTme			4/14/2011 4:02:00 PM	The cutoff field for Appointment is Appoin
	Appt	AppointmentMultiple	PATIENT	AppointmentMadeDate			10/9/2012 4:26:00 PM	The cutoff field for AppointmentMultiple is
Dim	CancellationReason	CANCELLATION REASONS				10/9/2012 9:07:00 PM	AppointmentMadeDate are not processed	

7:43 AM 4/4/2014

Metadata reports for each table allows users to see descriptions for each column

CDW Table-level Metadata Report

1

2

3

Field Name	Field Datatype	Field Length	Vista File	Vista Field
Reactant	char(1)	1	GMR ALLERGIES (120.82)	MASTER ENTRY FOR VUID (99.98)
	char(1)	1	GMR ALLERGIES (120.82)	NATIONAL ALLERGY (2)
Reactant	varchar(50)	50	GMR ALLERGIES (120.82)	NAME (.01)
ReactantIEN	varchar(50)	50		
ReactantSID	int	4		
ReactantType	varchar(50)	50	GMR ALLERGIES (120.82)	ALLERGY TYPE (1)
Sta3n	smallint	2		
VUID	varchar(50)	50	GMR ALLERGIES (120.82)	VUID (99.99)

More information to the right

Dim.Reactant Metadata (edited in excel)

Table Name	Field Name	Field Datatype	Field Length	Vista File	Vista Field	Primary Key	Foreign Key	Vista Field Description
Reactant	MasterEntryForVUIDFlag	char(1)	1	GMR ALLERGIES (120.82)	MASTER ENTRY FOR VUID (99.98)	N	N	This field identifies the Master entry for a VUID associated with a Term/Concept.
	NationalFlag	char(1)	1	GMR ALLERGIES (120.82)	NATIONAL ALLERGY (2)	N	N	Indicates whether this allergy was distributed with the national releasor is a locally added allergy.
	Reactant	varchar(50)	50	GMR ALLERGIES (120.82)	NAME (.01)	N	N	The name of the allergy/adverse reaction.
	ReactantIEN	varchar(50)	50			N	N	
	ReactantSID	int	4			Y	N	
	ReactantType	varchar(50)	50	GMR ALLERGIES (120.82)	ALLERGY TYPE (1)	N	N	This field contains the type(s) for this allergy/adverse reaction . Theuser can enter the type(s) separated by commas, or the following codes:D=Drug, F=Food, O=Other. If codes are used, do not use commas to separatemultiple codes. Examples of valid entries are: DRUG or DRUG, FOOD or Dor DF or OTHER.
	Sta3n	smallint	2			N	N	
	VUID	varchar(50)	50	GMR ALLERGIES (120.82)	VUID (99.99)	N	N	VHA Unique ID (VUID). A unique meaningless integerassigned to reference terms VHA wide.

This field contains the type(s) for this allergy/adverse reaction . Theuser can enter the type(s) separated by commas, or the following codes:D=Drug, F=Food, O=Other. If codes are used, do not use commas to separatemultiple codes. Examples of valid entries are: DRUG or DRUG, FOOD or Dor DF or OTHER.

Data Architecture Repository (DAR)

- This site serves as a repository for metadata from around the VA.
- It includes metadata for VHA information and VistA information.
- VistA is one of the primary sources of CDW data.
- Referencing these files can help clarify the meaning of CDW data.

DAR's VistA Metadata

UNITED STATES
DEPARTMENT OF VETERANS AFFAIRS

VA Intranet Home About VA Organizations Locations Employee Resources

Metadata Repository Home

VA

VHA Data Management (VHA Data Management)

VBA

MDR User Guide

Email Subscription

Report Issue

Enhancement Request

OneVA EA

the Metadata Repository

Metadata Repository provides a means to catalog, search, report, and manage metadata via a web-accessible portal. Metadata is data about data. Availability of an enterprise metadata repository enables data management and governance; promotes data understanding and use. Using the search below, use the tabs above to view all Metadata, Value Domain, or Thesaurus content, or click on the links to the right.

Select "VHA" from the left sidebar. Then select "Vista Metadata Repository (VistA)" from the list below.

Search For: Search IN: ☒ Metadata Name Only ☐ Identifying Fields Only ☐ All Attribute Fields WITH: ☒ Any of these words ☐ All of these words ☐ These words as a phrase

☒ Use Thesaurus

Use the options below to apply filter(s) to search results, returning only matches on selected criteria

Metadata Source Metadata Category Metadata Type

Once inside, you will want to search by file name or number or field name or number. The files and fields are listed in the CDW Metadata.

Dim.Reactant Metadata (edited in excel)

Table Name	Field Name	Field Datatype	Field Length	Vista File	Vista Field	Primary Key	Foreign Key	Vista Field Description
Reactant	MasterEntryForVUIDFlag	char(1)	1	GMR ALLERGIES (120.82)	MASTER ENTRY FOR VUID (99.98)	N	N	This field identifies the Master entry for a VUID associated with a Term/Concept.
	NationalFlag	char(1)	1	GMR ALLERGIES (120.82)	NATIONAL ALLERGY (2)	N	N	Indicates whether this allergy was distributed with the national release or is a locally added allergy.
	Reactant	varchar(50)	50	GMR ALLERGIES (120.82)	NAME (.01)	N	N	The name of the allergy/adverse reaction.
	ReactantIEN	varchar(50)	50			N	N	
	ReactantSID	int	4			Y	N	
	ReactantType	varchar(50)	50	GMR ALLERGIES (120.82)	ALLERGY TYPE (1)	N	N	This field contains the type(s) for this allergy/adverse reaction. The user can enter the type(s) separated by commas, or the following codes: D=Drug, F=Food, O=Other. If codes are used, do not use commas to separate multiple codes. Examples of valid entries are: DRUG or DRUG, FOOD or D or DF or OTHER.
	Sta3n	smallint	2			N	N	
	VUID	varchar(50)	50	GMR ALLERGIES (120.82)	VUID (99.99)	N	N	VHA Unique ID (VUID). A unique meaningless integer assigned to reference terms VHA wide.

The file of interest is “GMR Allergies” #120.82

The field of interest is “Allergy Type” #1

VistA Metadata on DAR

The screenshot shows the VistA Metadata Repository (VISTA) web application. The browser address bar displays the URL: <http://enterprise.metadata.va.gov/pls/apex/f?p=VISTA:1:1239236486026729:::>. The page header includes the United States Department of Veterans Affairs logo and the word "INTRANET". The main navigation bar contains links for "VA Intranet Home", "About VA", "Organizations", "Locations", and "Employee Resources". The left sidebar lists various links including "Data Architecture Repository (DAR) Home", "VA", "VHA", "VBA", "NCA", "DAR User Guide", "Email Subscription", "Report Issue", "Enhancement Request", and "OneVA EA". The main content area is titled "VISTA METADATA REPOSITORY (VISTA)". It contains a description of the repository and a section titled "How to Find VistA Metadata". This section lists several options for searching VistA metadata: using tabs, a general search box, or navigating directly to a specific package or file. A red oval highlights the "General Search" input field, which contains the text "120.82", and the "Search VistA" button. A red arrow points to the "Search VistA" button. Below the general search field are two dropdown menus for "Package Name" and "File Name (#)", each with a "Search" button.

UNITED STATES DEPARTMENT OF VETERANS AFFAIRS

VA Intranet Home About VA Organizations Locations Employee Resources

VISTA METADATA REPOSITORY (VISTA)

The DAR Veterans Health Information Systems and Technology Architecture (Vista) Metadata Repository provides an easy means to access and navigate maintained by the Standards and Compliance Office within the Office of Information and Technology. As VistA evolves and Platinum images are updated a listing of VHA national databases can be found within the [DAR VHA Corporate Database Monograph](#). Some of these databases are derived from point-

How to Find VistA Metadata

There are several options for searching VistA metadata:

- Use Tabs above to search within packages, files, fields, etc.
- Use the general Search VistA box below to search all packages, files, and field names, and descriptions.
- If you know the package name, you can navigate directly to a specific VistA package with drill down capabilities to files and fields using the Package I
- If you know the file name, you can navigate directly to a specific VistA file with associated field information using the File Name (#) select-list.

General Search: 120.82 Search VistA Reset

Package Name: Search

File Name (#): Search

Tip: Remember to use the “search VistA” button

Finding the file 120.82- DAR

The screenshot shows the VISTA Metadata Repository search results for the query '120.82'. The search results are displayed in a table with columns 'Src' and 'Name'. The first row, 'File GMR ALLERGIES {120.82} -', is circled in red. Below the table, there are additional search options and a 'Rows' dropdown set to 25.

United States *INTRANET*
DEPARTMENT OF VETERANS AFFAIRS

VA Intranet Home About VA Organizations Locations Emplo

VISTA METADATA REPOSITORY (VISTA)

Home Search VistA

The Search VistA window provides the ability to search all packages, files, and field names, and descriptions. Additional f

120.82 Search VistA Reset

Search Rows 25 Actions

Src	Name
File	GMR ALLERGIES {120.82} -
File	VA DRUG CLASSES {120.8205} -
File	SYNONYM {120.823} -
File	DRUG INGREDIENTS {120.824} -
File	COMMENTS {120.826} -
File	COMMENTS {120.8262} -
File	EFFECTIVE DATE/TIME {120.8299} -
Field	GMR ALLERGY This field is a variable pointer to help relate this allergy to some and VA Drug Class (50.605) file.
Field	REACTANT This is the agent to which the patient had this reaction. This is t files.

Looking at the fields in 120.82

VISTA METADATA REPOSITORY (VISTA)	
Home Files File Details	
File Details	History Data
File Num	120.82
File Name	QMR ALLERGIES
Description	Contains a listing of allergies from which user can select. Per VHA directive XXX, this file has been "locked down" by Data Standardization (DS). The file definition shall be done by Enterprise Reference Terminology (ERT) using the Master File Server (MFS), provided by Common Services (CS). Creating and/or editing I VHA Directive XXX shall not be supported.
Owning Package	ADVERSE REACTION TRACKING
F S	F
Parent File Num	*
Audit Access	⊞
Data Dictionary Access	⊞
Delete Access	⊞
Legacy Access	⊞
Read Access	*
Write Access	⊞
Global Reference	*GMRD(120.82.
Special Lookup Routine	*
Post Selection Action	*

Tip: Use the magnifying glass to check for descriptions of values when the values are not defined in the overall description.

Search

Reports

1. Primary Report

Rows

50

Actions

Field Name

Field Num

Data Type

Description

NAME

.01

FREE TEXT

The name of the allergy/adverse reaction.

ALLERGY TYPE

1

FREE TEXT

This field contains the type(s) for this allergy/adverse reaction . The user can enter the type(s) separated by commas, or the following codes: D=Drug, F=Food, O=Other. If codes are used, do not use commas to separate multiple codes. Examples of valid entries are: DRUG or DRUG, FOOD or D or DF or OTHER.

NATIONAL ALLERGY

2

SET

Indicates whether this allergy was distributed with the national release or is a locally added allergy.

SYNONYM

3

FREE TEXT

A list of synonyms that can also be used to look up this allergy.

DRUG INGREDIENTS

4

POINTER

List of drug ingredients that comprise this particular allergy.

VA DRUG CLASSES

5

POINTER

List of VA Drug classes that comprise this reactant.

MASTER ENTRY FOR VUID

99.98

SET

This field identifies the Master entry for a VUID associated with a Term/Concept.

VUID

99.99

FREE TEXT

VHA Unique ID (VUID). A unique meaningless integer assigned to reference terms VHA wide.

EFFECTIVE DATE/TIME

99.991

DATE/TIME

Describes the pair Status and Effective Date/Time for each reference term.

VINCI's Documentation

The screenshot displays the VINCI Central web application. The top navigation bar includes links for About, Using VINCI, Data, Guides, Support, and VINCI Workspace. The left sidebar contains sections for Applications (Data Access Request Tracker) and Shortcuts (My Collaboration Sites, VINCI Workspace, VHA Data Portal, HSR&D, VIREC, HSRData-L Listserv). The main content area is titled 'Available Data' and includes a breadcrumb trail: Home > Data > Available Data. Below the title, a paragraph explains that the following is a list of three categories of data available through VINCI, and that users can see a description of tables and columns by selecting a domain from the Data Descriptions on the right. Two links are provided: 'See CDW MetaData Reports Page on CDW site.' and 'See CDW-Raw Domains Page on CDW site.' Below these links is a section for 'CDW Production' with a database icon and a description of the Veterans Administration's Corporate Data Warehouse (CDW). On the right side, a 'Data Descriptions' panel is visible, listing various domains: Allergy, Appointment, Consult, CAN Score, CPRS Orders, Dental, Dimensions (CDW), Health Factors, Immunization, Inpatient, and Lab Chemistry. The 'Allergy' domain is circled in red.

VINCI Central

About Using VINCI Data Guides Support VINCI Workspace

Home > Data > Available Data

Available Data

The following is a list of the three categories of data available through VINCI. To see a description of the tables and columns contained within a domain, select it from the Data Descriptions on the right.

- See CDW MetaData Reports Page on CDW site.
- See CDW-Raw Domains Page on CDW site.

CDW Production

The Veterans Administration's Corporate Data Warehouse (CDW) is a national repository comprising data from several Veterans Health Administration (VHA) clinical and administrative systems. The objective of CDW is to provide data and tools to support management decision making, performance measurement and research objectives. Its premise is that

Data Descriptions

- CDW PRODUCTION
- Allergy
- Appointment
- Consult
- CAN Score
- CPRS Orders
- Dental
- Dimensions (CDW)
- Health Factors
- Immunization
- Inpatient
- Lab Chemistry

Here one will find additional documentation related to various CDW domains. The documentation is organized by domain. It contains some descriptions of meaning of content found in tables and columns. Documentation related to the Allergy domain is currently in transition.

<http://vaww.vinci.med.va.gov/vincicentral/Data.html>

Poll #3: About You

Which of the following best describes your role in the VA?

- ☐ Research Investigator / PI
- ☐ Data Manager / Analyst
- ☐ Project Coordinator
- ☐ Operations
- ☐ Other

Next example... A Raw Domain

Now, you are doing research that requires access to X-ray results. You do not currently have access to the data, but you want to learn about which measures exist in the CDW that are related to radiology. You decide to search the metadata for the raw domain called Radiology.

3 Documentation Sites for Raw Domains

- We will explore 3 main sites housing information related to our example domain:
 1. CDW SharePoint
 2. Data Architecture Repository (DAR)
 3. VA Informatics and Computing Infrastructure (VINCI)

A Raw Domain - Radiology Example

The screenshot shows the Department of Veterans Affairs Corporate Data Warehouse (CDW) website. The header includes the VA seal, the text "Department of Veterans Affairs Corporate Data Warehouse", and a breadcrumb trail "CDW Home > CDW HOME". The main navigation bar contains links for "CDW Home", "CDW Support", "Community", "Domain Teams", "MetaData", and "TechTeam". A red arrow points from a box labeled "Click 'Community'" to the "Community" link. Below the navigation bar, a dropdown menu for "Community" is open, showing options: "Community Home", "CDW Governance Board", "SharePoint Governance Board", "VA GIS User Home", "RDW", "NDS", "iEHR Mapping", "CDW RAW", and "Data Access Committee". A second red arrow points from a box labeled "Select 'CDW Raw'" to the "CDW RAW" option. To the right of the dropdown, there is a section titled "WHAT'S IN THE WORKS?" with three items: "General Announcements", "Training Announcements", and "CDW Domain Status and Priority (Excel)".

Department of Veterans Affairs
Corporate Data Warehouse

CDW Home > CDW HOME

CDW Home CDW Support Community Domain Teams MetaData TechTeam

Community Home
CDW Governance Board
SharePoint Governance Board
VA GIS User Home
RDW
NDS
iEHR Mapping
CDW RAW
Data Access Committee

WHAT'S IN THE WORKS?

- General Announcements
- Training Announcements
- CDW Domain Status and Priority (Excel)

CDW Raw Reports

Site Actions Browse Page

United States Department of Veterans Affairs Database ▶ Raw Extractor
CDW Database Team

CDW Home CDW Support **Community** Domain Teams Metadata TechTeam

Recently Modified
Team Pictures
Raw Extractor
CDW Database
Master Server List

CDW RAW
Libraries
Site Pages
Shared Documents
Reports
Pages
Database Team Wiki
Weekly Schedule Review
Lists

[What's new in CDW-Raw](#) [Access Permissions](#) [Customer Impact Statements](#) [Extractor Guide](#) [DBA Handbook](#)

CDW-Raw - 9/9/2014 6:32 PM – Steve Martin

Domain	Stakeholders	Schedule	Last Extract	Next Extract	Time	Records/Space	NDS Privilege	Project Notes
Allergies v1 Schema: Allergies since Dec 2010	Mike.Wrobel@va.gov; Hamid.Saoudian@va.gov; Evan.Lott@va.gov; Samantha.Wright2@va.gov; Matthew.Lichtenberg@va.gov; Richard.Schaefer@va.gov; Don.Lees@va.gov; Robert.Silverman@va.gov; Lynne.Barron@va.gov; Brian.Alexander@va.gov;	Weekly Weekends	SEP 07 2014	SEP 14 2014	12 Hours	170 M recs 8 Gb	Basic (CDW_Full)	6/20/13 - Allergies will be promoted to CDW-Prod toward 2014 Extracts performed on same schedule as Non VA Meds. POC: Mike Wrobel
Beneficiary Travel (CBO) v2 Schema: Travel	Kristina.Ebersole@va.gov; Rex.Gore@va.gov; Joseph.Sams@va.gov; David.Riley@va.gov; Paul.Perry@va.gov; Kathleen.Frisch@va.gov; Francis.Archibald@va.gov; Gina.Julian2@va.gov; Kenneth.Baker2@va.gov; Indira.Panru@va.gov;	Bi-Weekly Sunday before Payday	SEP 07 2014	SEP 21 2014	10 Hours	120 M recs 32 Gb	Basic (CDW_Full)	POC: Kristina Ebersole Change extraction day from Wednesday to Monday

Find the names of the raw domain here.
Scroll down to find radiology.

Radiology Domain Report

Radiology v3	Hamid Saoudian@va.gov ; Evan.Lott@va.gov ; Mark.Love@va.gov ; Joseph.Eccleston@va.gov ; Ted.Fletcher@va.gov ; Jack.Bates@va.gov ; Kathleen.Frisbee@va.gov ; Shawn.Hardenbrook@va.gov ; Ron.Moody@va.gov ; Jason.Ray@va.gov ; Timothy.Dove@va.gov ; Christa.Kramer@va.gov ; Cheryl.Gandy@va.gov ; Rebecca.Gandillon@va.gov ; Scott.Dingman@va.gov ; Jody.Pasell@va.gov ; James.Prelerison@va.gov ;	Twice per Month	SEP 01 2014	SEP 21 2014	72 Hours	2 B recs 415 GB	Basic (CDW_Full)	Initial requirements came from VISN20 ER diagrams and VINCI team. POC: Hamid Saoudian Radiology skipped 02/17/2012
Schema: Radiology since Mar 2011		2nd & 4th Friday						<div>Click here</div>

CDW-Raw Radiology Extracts - v3

3/19/2012 3:42 PM

[CDW-Raw Radiology Extracts - v3](#)

Summary

[Key Contacts](#)
[Extraction Schedule](#)
[Extracted Tables](#)
[Change History](#)
[Permissions](#)
[Current Inventory](#)
[Best Practices](#)
[Sample Queries](#)
[Data Handling](#)
[Indexes](#)
[Extraction Metadata](#)
[Performance Tuning](#)
[Radiology Grouping](#)
[Extraction Summary](#)
[Grouping with Tables](#)
[SQL Extract Queries](#)
[Extraction Errors](#)
[Vista Files & Fields](#)
[Vista Site numbers](#)

Summary

This document contains information about the CDW Raw Extraction of the Radiology grouping. This domain was a priority domain by the CDW Governance Board. This extract will be from all 130 Vista sites, starting

The data can be accessed using the views in the CDWWork database on vhwcdwa06.

Key Contacts

Current information as of 01/30/2012

Project/Domain	Radiology
Current Stakeholders	Evan.Lott@va.gov Nata.Yao@va.gov Mark.Love@va.gov Joseph.Eccleston@va.gov Natali.Anderson@va.gov Ted.Fletcher@va.gov Jack.Bates@va.gov Kathleen.Frisbee@va.gov
Current Point of Contact	Hamid.Saoudian@va.gov

Extraction Schedule

Radiology is extracted according to the [CDW-Raw Weekly Extraction Schedule](#), currently the first and third Fridays of the month.

Extracted Tables

The original requirements came from the VINCI team on 3/16/2011. The list included all of the files on the [VISN 20 data model](#) (below) and some additional tables needed by VINCI.

Change History

12/9/2011 - v3

Added these for Kathy Frisbee

rad_modality_defined_term_73_1

digycptbprodtype_73_2

To arrive at this report

10/27/2014

List of Tables

8/29/2011

#	Schema	Table	Count	KBy
1	Radiology	complication_types_78_1	1,151	
2	Radiology	contractsharing_agreements_34	574	
3	Radiology	diagnostic_codes_78_3	5,887	
4	Radiology	examination_status_72	8,015	
5	Radiology	imaging_locations_79_1	3,932	
6	Radiology	imaging_stop_codes_71_5	1,761	
7	Radiology	imaging_type_79_2	1,211	
8	Radiology	nuc_med_exam_data_70_2	929,887	
9	Radiology	nuc_x_radiopharmaceutica_70_21	1,106,965	
10	Radiology	procedure_modifiers_71_2	8,416	
11	Radiology	procedux_type_of_imaging_71_23	11,253	
12	Radiology	radnuc_med_common_procedu_71_3	30,029	
13	Radiology	radnuc_med_division_79	502	
14	Radiology	radnuc_med_orders_75_1	114,631,527	
15	Radiology	radnuc_med_patient_70	13,003,262	
16	Radiology	radnuc_med_procedures_71	199,197	
17	Radiology	radnuc_med_reason_75_2	6,956	
18	Radiology	radnuc_med_reports_74	127,459,417	1
19	Radiology	radnuc_med_rx_other_case_74_05	12,464,589	
20	Radiology	radnuc_med_x_descendents_71_05	45,890	
21	Radiology	radnucx_contrast_media_71_0125	37,276	
22	Radiology	radnucx_registered_exams_70_02	118,788,661	
23	Radiology	radnucx_hold_description_75_125	358,560	
24	Radiology	radnucx_imaging_locations_79_01	3,279	
25	Radiology	radnucx_clinical_history_f_75_11	355,277,404	

- Scroll down to find a list of tables in the domain.
- Notice the names are using the VistA naming traditions.
- The first table in the list is Radiology.complication_types_78_1
- That corresponds to VistA file “Complication Types” #78.1

VistA Documentation in DAR #78.1

http://enterprise.metadata.va.gov/pls/apex/f?p=VISTA:1:1808739254807661:::

Database - Raw Extractor

Convert Select

UNITED STATES DEPARTMENT OF VETERANS AFFAIRS

VA Intranet Home About VA Organizations Locations Employee Resources

VISTA METADATA REPOSITORY (VISTA)

The DAR Veterans Health Information Systems and Technology Architecture (VistA) Metadata Repository provides a centralized location for VistA metadata. It is maintained by the Standards and Compliance Office within the Office of Information and Technology. As VistA evolves, the repository will provide a listing of VHA national databases can be found within the DAR VHA Corporate Database Monograph. Some of these databases include:

How to Find VistA Metadata

There are several options for searching VistA metadata:

- Use Tabs above to search within packages, files, fields, etc.
- Use the general Search VistA box below to search all packages, files, and field names, and descriptions.
- If you know the package name, you can navigate directly to a specific VistA package with drill down capabilities to find the file name.
- If you know the file name, you can navigate directly to a specific VistA file with associated field information using the field name.

General Search: 78.1 Search VistA

Search for file 78.1

Select "complication types"

UNITED STATES DEPARTMENT OF VETERANS AFFAIRS

VA Intranet Home About VA Organizations Locations Employee Resources

VISTA METADATA REPOSITORY (VISTA)

Home Search VistA

The Search VistA window provides the ability to search all packages, files, and field names, and descriptions. Additional filtering, advanced search, and other options are available.

78.1 Search VistA Reset

Search Rows 25 Actions

Src	Name
File:	COMPLICATION TYPES {78.1}
Field:	COMPLICATION

This field points to the 'COMPLICATION TYPES' file (#78.1) to indicate if this patient has a history of contrast media as an allergen in the Adverse Reaction Tracking (ART).

10/27/2014

Examine Content

VISTA METADATA REPOSITORY (VistA)

Home Files File Details

File Details History Data

File Num: 78.1
File Name: COMPLICATION TYPES

Description: This file contains the types of complications that may occur while a procedure is being performed. If there is a complication during an exam, then the technologist can indicate which of these complications in this file the exam should be associated with by using either the 'Case No. Edit' or 'Edit Exam By Patient' functions of the module. When the system is initialized, two complications are loaded into the module. They are 'no complications' and 'contrast reaction'. If a 'contrast medium reaction' is associated with an exam, then the patient's record in the Allergy Tracking System will automatically be updated to indicate he/she has had a reaction. As a result, everytime the patient is registered for a procedure that may involve contrast material, the receptionist will be warned and he/she should then take appropriate action. Entries in this file should not be deleted. Adding new entries is always allowed. Data Storage ----- The data for the 'COMPLICATIONS TYPE' file is stored in the 'RA/78.1, global. At the present time this file is very static after day-one initialization is complete. However, it still should be journaled. It should also be translated if the operating system supports this function. Input Templates ----- The package does not use any input templates associated with this file. Print Templates ----- The package does not use any print templates associated with this file. Sort Templates ----- The package does not use any sort templates associated with this file.

Owning Package: RADIOLOGY/NUCLEAR MEDICINE
Parent File Num: F S F
Audit Access: -
Data Dictionary Access: -
Delete Access: -
Lays Access: -
Read Access: -
Write Access: -
Global Reference: ^RA(78.1,
Special Lookup Routine: -
Post Selection Action: -

The two fields are listed here. This is the same content that will be found in the CDW table.

Search Reports: 1. Primary Report Rows: 50 Actions

Field Name	Field Num	Data Type	Description	Help Text	File Pointed To Name
COMPLICATION	.01	FREE TEXT	This field contains the name of the type of complication that may be associated with an exam. Initially, the system contains two complication types: 'Contrast Reaction', and 'No Complication'. Other complication types may be entered by the rad/nuc med coordinator at each site and can be 3 to 30 characters in length.	Enter a type of complication, between 3 and 30 characters in length, that may be associated with an exam.	-
CONTRAST MEDIUM REACTION?	2	SET	This field is used to indicate that a patient has had an allergic reaction to the contrast medium used during an exam. If this field contains a 'Yes', then it triggers a contrast medium as an allergen in the Allergy Tracking System. As a result, whenever the patient is registered for a procedure that involves contrast material, a warning message is displayed to the receptionist. Answering 'Yes' to this field also affects the Complications Report, since contrast medium reaction complications are tallied in an extra total line.	Enter 'Y' for YES if the complication is a contrast medium reaction.	-

Field Name	Field Num	Data Type	Description
COMPLICATION	.01	FREE TEXT	This field contains the name of the type of complication that may be associated with an exam. Initially, the system contains two complication types: 'Contrast Reaction', and 'No Complication'. Other complication types may be entered by the rad/nuc med coordinator at each site and can be 3 to 30 characters in length.
CONTRAST MEDIUM REACTION?	2	SET	This field is used to indicate that a patient has had an allergic reaction to the contrast medium used during an exam. If this field contains a 'Yes', then it triggers a contrast medium as an allergen in the Allergy Tracking System. As a result, whenever the patient is registered for a procedure that involves contrast material, a warning message is displayed to the receptionist. Answering 'Yes' to this field also affects the Complications Report, since contrast medium reaction complications are tallied in an extra total line.

VINCI Raw Documentation

VINCI Central | About | Using VINCI | Data | Guides | Support | VINCI Workspace

Home > Data > Available Data

Available Data

The following is a list of the three categories of data available through VINCI. To see a description of the tables and columns contained within a domain, select it from the Data Descriptions on the right.

- See [CDW MetaData Reports Page](#) on CDW site.
- See [CDW-Raw Domains Page](#) on CDW site.

CDW Production

The Veterans Administration's Corporate Data Warehouse (CDW) is a national repository comprising data from several Veterans Health Administration (VHA) clinical and administrative systems. The objective of CDW is to provide data and tools to support management decision making, performance measurement and research objectives. Its premise is that incorporating data from multiple differing data sets throughout the VHA into one standard database structure will facilitate reporting and data analysis at the enterprise level. The CDW operates within the VA Office of Information & Technology Field Operations Business Intelligence Service Line.

CDW data are stored in a relational database. Multiple VA data sources are being merged so that cohorts will be definable by attributes such as ICD-9 codes and CPT codes from both inpatient and outpatient encounters or from abnormal values of vital signs like blood pressure, weight and height, within a target time period. Data are kept current by refreshing on a nightly basis and is available beginning October 1, 1999. CDW is considered to be the best model data.

CDW Raw

The purpose of CDW Raw is to hold domains that have not been obtained through the normal CDW process. The Raw extractor allows us to obtain data quickly and to make changes as subject area experts refine their requirements. Certain domains will be promoted to CDW Prod, and others will not. CDW Raw data domains have limited documentation, entail additional provisioning time, and are more difficult for studies to utilize.

The Raw extraction data are not as refined as the CDW primary data set. They are extracted directly from the VistA sites through a process as data snapshots, rather than continuously as does CDW. The Raw extractions are therefore not kept current. However, some are updated monthly depending on the domain. Extractions may be repeated as needed.

SAS Data Sets

The SAS data sets are national administrative data for VHA-provided health care utilized primarily by veterans, but also by some non-veterans (e.g., employees, research participants). The data sets are provided in SAS format by fiscal year (Oct. 1 - Sept. 30). These data are extracted from the National Patient Care Database (NPCD) maintained by the VHA Office of Information at the Austin Information Technology Center (AITC), the central repository for VA data. Having historically been monitored by AITC mainframe, VINCI has acquired a complete copy of those data sets.

In all of the SAS data sets, each patient has a unique identifier referred to as the Scrambled SSN, which is a formula-based encryption of the Social Security Number. The identifier is consistent for a given patient across data sets and fiscal years.

Please note that VINCI consolidated the pre-2005 DSS data from the mainframe SAS files that were available at Austin (AITC). Since VINCI is not the data owner, no attempt was made by VINCI to modify, enhance, or change the data other than consolidating the original individual SAS files and making the data available as SQL Server tables. DSS is now known as MCA. Please visit the [VIREC site](#) to find more information MCA data.

Data Descriptions

CDW PRODUCTION

- Allergies
- Appointment
- BCMA
- CAN Score
- Consult
- Dimensions (CDW)
- Fee (Purchased Care)
- Health Factors
- Immunization
- Inpatient Encounters
- Lab Chemistry
- Lab Microbiology
- Mental Health Assessment
- Orders (CPRS)
- Outpatient Pharmacy
- Outpatient Visits
- Patient (Demographics)
- PCMM
- SPatient
- Staff
- Vital Signs

CDW RAW

- Beneficiary Travel (CBO)
- Bill Claims (CBO)
- Compensation & Pension Exam
- Dimensions (CDW-Raw)
- Echocardiogram
- Electronic Time Attendance
- Emergency Dept. Inc. Software
- Equipment Inventory
- Fee Basis
- IFCAP
- Inpatient Pharmacy, IV
- Inpatient Pharmacy, Unit Dose
- My Healthc Vnc
- Non-VA Meds
- Oncology
- Paid
- Procedures
- Radiology
- Surgery
- TIU Documents

SAS

- MCA NDE (was DSS NDE)
- MedSAS

OTHER

- Vital Status

Also find reports about raw domains in the VINCI data documentation.

VINCI Radiology Report

VINCI Data Description Raw Radiology Extract

Contents

About Radiology.....	3
Meta Data	3
Main Tables.....	3
Additional Tables	3
Dimension Tables.....	4
Column Description	
	radxx_procedure_modifiers_70_1 31
	Radxx_Secondary_Diagnost_70_14..... 31
	subx_cpt_modifiers_70_3135 32
	complication_types_78_1..... 32
	contractsharing_agreements_34..... 33
	diagnostic_codes_78_3..... 33
	examination_status_72 34
	Imaging_Locations_79_1 39
	imaging_stop_codes_71_5 43



VINCI Table Description

Table Name	Table description
complication_types_78_1	<p>This file contains the types of complications that may occur while a procedure is being performed. If there is a complication during an exam, then the technologist can indicate which of these complications in this file the exam should be associated with by using either the 'Case No. Edit' or 'Edit Exam By Patient' functions of the module.</p> <p>When the system is initialized, two complications are loaded into the module. They are 'no complications' and 'contrast reaction'.</p> <p>If a 'contrast medium reaction' is associated with an exam, then the patient's record in the Allergy Tracking System will automatically be updated to indicate he/she has had a reaction. As a result, everytime the patient is registered for a procedure that may involve contrast material, the receptionist will be warned and he/she should then take appropriate action.</p> <p>Entries in this file should not be deleted. Adding new entries is always allowed.</p>

VINCI Field Descriptions

complication_types_78_1

ColumnName	DataType	Description
sta3n	Smallint	
ComplicationTypesIEN	Varchar(50)	
Complication	Varchar(50)	<p>This field contains the name of the type of complication that may be associated with an exam.</p> <p>Initially, the system contains two complication types: 'Contrast Reaction', and 'No Complication'. Other complication types may be entered by the rad/nuc med coordinator at each site and can be 3 to 30 characters in length.</p>
ContrastMediumReaction	Varchar(30)	<p>Field Codes : Y:YES;N:NO;</p> <p>This field is used to indicate that a patient has had an allergic reaction to the contrast medium used during an exam. If this field contains a 'Yes', then it triggers a contrast medium as an allergen in the Allergy Tracking System. As a result, whenever the patient is registered for a procedure that involves contrast material, a warning message is displayed to the receptionist. Answering "Yes" to this field also affects the Complications Report, since contrast medium reaction complications are tallied in an extra total line.</p>

Limitation of these sources

- The main limitation of these documentation sources is the frequent lack value descriptions.
- 4 places to look:
 - DAR (see tip on slide 38 – magnifying glass)
 - VIREC Sample Records
 - VIREC Discrete Counts (most tables)
 - VIREC Factbooks (Consult Domain available now)

Summary/Conclusion

- Some variety of these sites will prove useful in learning about the CDW content in which you are interested.
- These primary variation are based on whether or not the data is in a production domain or in a raw domain.
- However, there is also endless variety of considerations regarding where and when you find the specific documentation you are seeking.

Questions?

Margaret Gonsoulin, PhD

VIReC@va.gov

708-202-2413

Content Specific Resources



Additional Documentation & Assistance (1)

Domain	Source - Title
Consult	VIReC Factbook- Corporate Data Warehouse (CDW) Consult 2.0 Domain
Inpatient	CDW Insights Days Presentation 3/26/ 14 & Data Quality Report - Guide to Inpatient 2.0 Contents CDW Insights Days Presentation 3/26/14- Data Transformation from VistA files to CDW
Lab Microbiology	VIReC Researcher's Notebook - Issue 1: How do I identify the causative organism in CDW Lab Microbiology? An Example Using Staphylococcus Aureus
Lab Chem	VIReC Cyberseminar- A Practical Guide to Using the Corporate Data Warehouse LabChem Data: VA Informatics and Computing
Mental Health	CDW Insights Days Presentation 3/26/14- Tele-Mental Health: Preliminary Analysis of Unique Patients
Outpatient	VIReC Cyberseminar - Identification of Outpatient Workload in CDW Data Quality Report - Applying NPCD Business Rules to CDW Outpatient Visits to calculate Workload
Patient	Data Quality Report - Work on Race and Ethnicity Data Quality Report - Identifying Unique Patients in CDW (SPatient Only) Data Quality Report - Identifying Veterans in the CDW Data Quality Report - Identifying Test Patients in CDW
Pharmacy	CDW Insights Days Presentation 4/30/14- Applied Research in the VINCI Environment
Vital Status	Data Quality Report - CDW Date of Death Analysis and Vital Status File Comparison

Additional Documentation & Assistance (2)

- Data Quality Page:

<http://vaww.vhadataquality.va.gov/index.php?lang=en>

- CDW Insights Days:

<https://vaww.dwh.cdw.portal.va.gov/Support/Training/SitePages/Home.aspx>

- VIREC Cyberseminars:

<http://www.virec.research.va.gov/Resources/Cyberseminars.asp#Upcoming>

- VIREC HelpDesk:

<http://vaww.virec.research.va.gov/Support/HelpDesk.htm>

- HSRData-L ListServ:

<http://vaww.virec.research.va.gov/Support/HSRData-L.htm>

Next session:
January 26, 2015

Getting the Information You Need from CDW: SQL Starter Language

Margaret Gonsoulin, PhD